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PREREQUISITES TO PROGRESS

I am here today because the rangelands of this country are a tremendously rich resource whose value we have only begun to fathom and because this resource needs greater attention and much better management if we are going to appreciate it and use it fully.

I am here, too, because you range professionals are the most critically important element in our range efforts.

We need to do a lot more to build our range programs in this next year, and in the years beyond. I'll outline some prerequisites we need to fulfill to carry out an effective range program.

Cause for Commitment

In my remarks at the Symposium on Rangeland Policies for the Future last January in Tucson, I committed the Department of Agriculture to giving range programs equal billing with our other natural resource programs.

There were two reasons for that commitment:

First was our growing concern about the poor condition of the nation's rangelands. Nearly 45 percent of federal rangelands--and 60 percent of nonfederal rangelands--are in fair or poor condition. That's poor by any standard, and the American people are concerned about it.

Second was our realization that these rangelands had gained a wider, national constituency; that the demands upon them were simultaneously intense and diverse; and that this could lead to use conflicts and, perhaps, damage to the productive capacity of some of these rangelands; and that these uses had to be managed if they were to be sustained.

That is why we invited the Department of the Interior and the Council on Environmental Quality to jointly sponsor the Tucson symposium--to bring together the people who own, manage, and use rangelands to discuss the problems and needs of the nation's rangelands, and to help us determine how we should address them.

We came back from Tucson with a sense that, though we already have done much to improve the range and how we use it, there is much more work still ahead of us. We became aware that those of us who administer range programs needed to examine our policies, to seek answers to the range problems we discovered.

#### USDA's New Range Policy

We have done precisely that in the past year. We have exhaustively examined our range role in the Department of Agriculture and rethought our range policies. Out of that we developed a new and comprehensive policy covering all Department of Agriculture programs related to range--the first of its kind--which Secretary Bob Bergland signed last October.

Under this new USDA policy:

- We will coordinate our range planning and programs with other public agencies and with interested private organizations and individuals.
- We will periodically inventory and assess the nation's range resources to provide data that identify multiple-use opportunities, and that can be used by planners, policymakers, and practitioners at all levels of the Department of Agriculture and other organizations responsible for range management.
- We will support federal and cooperative range research programs that can provide the knowledge and improved technology needed for better range management.
- We will accelerate range management extension education and other technology transfer efforts.
- We will give added emphasis to range-related conservation assistance and incentive programs.
- We will administer our range programs at cost-effective levels that are commensurate with demand and in line with the land's productive capacity.
- We will maintain a professional work force of range managers.
- And we will make our range programs available and safe for all.

Those are the basic elements of our new range policy. They will complement our other major recent policy initiatives in pest management, land use, and wildlife and fish.

Implementing the Policy

Our efforts to improve the nation's rangelands now have reached a critical point of transition from policy to practice. The more difficult work is yet to be done.

All of us are familiar with the variety of laws through which the Congress has given us a solid statutory foundation for our rangeland efforts. With President Carter's support and encouragement, we have shaped our policies and programs to address the rangeland needs ahead.

Now we are faced with the major task of executing these policies--of carrying them out, on the ground, to produce some tangible gains in rangeland productivity and worth. That is the bottom line of our rangeland commitment--the part that will determine our success--and we need to do it well.

We have established a Departmental Committee on Range, directed that USDA agencies bring their policies and programs into compliance with the department policy, and required a coordinated plan of action.

Those actions will help. But the prime determinants of our rangeland success will be our individual professional range managers--your understanding and acceptance of our policies and programs, and their skill in carrying them out. That is why we worked so closely with the Society for Range Management as we examined our programs and reviewed our range policies. It's one of the reasons I am here today.

Now let's get down to the work ahead. We propose to do this by continuing to work with you to make these policies and programs as effective as they must be to restore the productivity and stability of the nation's rangelands.

The consistent progress needed in rangeland improvement is dependent upon several major prerequisites:

### Build Upon RPA and RCA

First, our efforts should build upon the Forest and Rangeland Renewable Resources Planning Act (RPA) and Soil and Water Resources Conservation Act (RCA).

These resource-evaluation and program-planning systems are already in place in the Department of Agriculture. Together, they evaluate the status, condition, trend, and needs of all of the nation's basic surface resources--the soil, water, forests, rangelands, and other lands and related resources--whether public or privately owned. They provide the essential data base for all resource program planning--a good reason why we should use these RPA and RCA processes as the foundation of any rangeland improvement effort.

Another good reason is that these resource evaluations already are used to determine future conservation programs for the Soil Conservation Service, the Forest Service, and at least six other USDA agencies--programs which will directly affect three-fourths of the nation's rangelands. And in his 1979 environmental message direction that the Department of the Interior tap into the RPA Assessment and develop a similar program-planning process for the Bureau of Land Management, President Carter is effectively extending the use of these evaluations to guide management on the remaining quarter of our nation's range.

### Manage for Many Values

Second, we must manage rangelands for many values at once.

The late Francis Colbert once noted that "range--or rangeland or range ecosystems--is a kind of land. It is not a land use." And he suggested that "it's time we made a serious effort to recognize range for what it is--a major land resource from which there is, and can be obtained, a wide variety of products and values, of goods and services."

We are becoming increasingly dependent upon rangelands for a variety of uses. Rangelands provide nearly a fifth of the total roughage used by livestock in this country. They are mined for the coal and minerals which lie beneath them. They are hunted on, driven over, and frequented by recreationists. They provide habitat for many species of wildlife. And we are looking to them as possible commercial sources of oil from jojoba, rubber from guayule, and firewood from juniper.

We have to consider these and any other rangeland values in our management programs, blending uses where possible. Where uses are compatible, we can let them coexist. Where they are not, we need to modify or restrict some uses to favor others or protect the land. Range grazing must continue, and be better integrated with other multiple uses, so that livestock grazing is both an end product and a management tool.

Riparian ecosystems, in particular, are one of the most sought-after areas. They are the richest zones for birds and other wildlife, essential to aquatic life, desired by livestock for their coolness and lush vegetation, rich sources of stream-deposited gravel, and popular sites for water-based recreation.

It is no wonder, then, that in the midst of the constant conflict which swirls around public land use, the arguments over the riparian ecosystems are often the loudest.

These conflicts are particularly obvious in the arid or semiarid west, where grazing is year-round and competition for available water is a way of life. In these areas, livestock grazing has the greatest single impact on riparian zones. Overgrazing can remove the canopy of riparian vegetation, destroy fish and wildlife habitat, and promote erosion.

This doesn't have to be the case. Through integrated resource planning, which recognizes the importance and uniqueness of riparian ecosystems, manages them as an integral component of adjacent lands, and protects them from overuse, these riparian ecosystems can be both protected and used.

In eastern Oregon, for example, the Forest Service has set objectives for riparian ecosystems and incorporated them into rotational grazing systems. This has produced positive improvements in riparian habitat over the past several years.

Many of America's rangelands are sites of past human activities, and therefore may contain significant cultural resources such as artifacts, archaeological sites, and items of historical value and interest. These are irreplaceable signposts of our past, which we must protect from vandalism, theft, or accidental damage from land management activities. That may require a special commitment by range and other resource professionals.

There is an opportunity here to enlarge public understanding and appreciation of archaeological resources and other rangeland resources through interpretation and cultural resource education programs. The National Park Service has noted that increases in visitor attendance at archaeologically related monuments have been 27 percent greater than at other types of national monuments. That is a significant indicator of public interest.

My point is that we must come to view management of rangelands as management of the many values associated with rangeland ecosystems--in exactly the same way that forest management has become synonymous with management for a variety of uses--for water, recreation, wilderness, forage, timber, fish and wildlife, cultural resources, and biomass-derived energy.

Rangeland management should no longer be considered a grazing stepchild of natural resource management and agricultural production. It must be considered the skilled production and coordination of the land's bounty, and above all, land stewardship for the benefit of all Americans.

#### Quantify Value of Land Stewardship

Third, we must do a better job of identifying and quantifying the many values from rangeland management.

In our efforts to increase federal investments in rangeland programs, we always have been hindered by our inability to quantify the full value of those programs. Our efforts to justify our rangeland programs on the basis of improved livestock often don't survive tests of cost effectiveness except on the most productive rangelands.

In the Forest Service's 1980 RPA program planning, for example, no level of investment in rangeland management--not even the lowest--was deemed cost effective in the intermountain region of Utah, Nevada, and southern Idaho when justified solely on the basis of improved livestock production.

But we manage rangelands for many purposes, simple land stewardship among them, and we ought to be able to quantify the full value of range stewardship. When we can do that credibly, we can build a better case for range investments in a decision making environment where we are competing with other programs for tight budget dollars. It's time we did the hard work necessary to succeed at this effort.

Target Range Research

Fourth, we must have a solid range research program that is targeted to solving this and other major range management problems. For example:

1. We need to develop better methods of inventorying rangelands and evaluating their condition.

Several range classification systems are currently in use. The result:

Incompatible inventory results and restricted usefulness and applicability of the findings. We urgently need to develop and adopt a standardized multi-resource identification, classification, and inventory system--one which can give planners, policymakers, and land managers alike a comprehensive and consistent framework for resource assessment.

2. We need better methods for measuring the interactions and tradeoffs among multiple range resources.

With the growth in the intensity and variety of demands we are experiencing on rangelands, we must provide a closer blending of several uses on a given land area. We must improve our knowledge and understanding of multi-resource interactions, particularly the compatibility of livestock grazing and other resource uses and values in mountain meadows and riparian ecosystems. We need to know more about the impacts and tradeoffs among resources attributable to range improvement practices in unique and fragile arid and semi-arid ecosystems. Only through increased understanding of resource interactions can we develop the guidelines necessary to ensure that range ecosystems remain intact under the pressures we anticipate for their use.

3. We need to explore systems of pest vegetation management to develop economic alternatives to chemical herbicides.

Brush and weeds remain the most serious rangeland problem in many areas. We need better pest vegetation management systems, and fully examine the side-effects of chemical brush control. A variety of management, cultural, and biological methods for weed and brush control are available. Yet the sophistication of our pest vegetation management techniques is nearly a decade behind insect pest management systems.

The concept of integrated control methods has rarely been applied successfully to rangelands, despite its successes in managing insect pests. We must develop an integrated pest vegetation management system, using genetic, cultural, and biological alternatives to chemicals where possible.

4. We need to develop and use new germplasm and improved cultivars of grasses, forbs, shrubs, and nitrogen-fixing plants.

Plant improvement through the selection and breeding of new range plant types and varieties has received limited attention, despite the significant potential for improved production. We have efforts underway to collect and evaluate germplasm from China and other foreign countries, but the effectiveness of this program depends upon the adoption of proven new varieties for range use. President Carter directed stricter control of exotic species in his 1977 environmental message, but this does not apply to the necessary and beneficial exotic plant species which we use in range management, forestry, and other agricultural programs. We need to use the results of our plant improvement research programs, including work done at the Soil Conservation Service's plant materials centers.

5. We need to develop innovative approaches to water conservation and management in range programs.

A shortage of water and excessive salinity are major problems associated with arid rangelands, yet we have much to learn about water use and regulation in our resource programs. And the Federal Water Pollution Control Act is requiring that we identify the quality of water from various land types. We have some information on water quality related to range and forest lands, but must do the additional research needed to fill the gaps in our knowledge.

A related matter is our growing concern about the adequacy of in-stream flows to meet the minimum needs of fish, to maintain riparian vegetation, and to carry out a multiple-use management program on the National Forests and Grasslands.

Prior to the 1978 Supreme Court decision in the Rio Mimbres case, we believed that the doctrine of reserved water rights applied to all designated uses of public lands.

But the court has made it clear that, unless we can prove the need for watershed protection or timber management, we cannot claim a reserved water right under the 1897 date for the National Forest Organic Act.

In practice, this will not hit Forest Service land management programs as hard as it could. Many states have provided sufficient water rights to meet our land management needs. But where we may face a danger of insufficient water, the Forest Service is selectively filing to establish water rights in the name of the United States.

6. We need to find out what is necessary to encourage and assist private rangeland owners in improving range condition.

Nonfederal rangelands comprise nearly two-thirds of the nation's total, and our Resources Conservation Act Appraisal shows that 32 percent of these lands are overgrazed. The RCA appraisal estimates that our private rangeland productivity is only 55 to 60 percent of what it can and should be, although recent improvements have been considerable.

Most farmers and ranchers know the value of range that is in good or excellent condition. Why then don't they do a better job of improving rangeland vegetation?

There are some who answer that it's a difficult problem.

Sure, it's a difficult problem, but we can deal effectively with it. And we must, if we are going to bring a halt to the cycles of economic and ecological change that begin when vast amounts of land are permitted to lose their productivity.

At President Carter's direction in his 1979 environmental message, we are working with the Council on Environmental Quality to study all possible conservation incentives. We need tactical research to find out what motivates people, to evaluate incentive experiences in other conservation programs, and to find out what principles made them work.

Scientists can help us address these and the many other researchable problems that affect America's range programs. We can help them target research to priority needs, and cluster the interdisciplinary teams needed to do the studies.

## Technology Transfer

A fifth prerequisite to range progress is that we must promptly put this research knowledge to work. The Tucson symposium revealed that we have a great deal of available technology that has not been applied. We need an effective technology transfer program in range management as well as other natural resource programs.

I am confident that we are building such a quality program in the Department of Agriculture. One of the most effective technology transfer programs in the United States has been USDA's and the land-grant universities' Cooperative Extension Program. That is a nationwide delivery service for many kinds of information and educational materials.

Extension in some states has given inadequate attention to natural resource conservation and management--despite the evident need. But that may change soon. President Carter signed the Renewable Resources Extension Act in 1978, which gives the extension system the explicit responsibility and authority to conduct resource-use education programs to transfer the technology from research to users.

A natural resource program has been established at the federal level in extension. A year ago in Tucson, I announced that M. L. "Pete" Petoskey had been hired from the Michigan Department of Natural Resources to head this new unit. Now we are in the process of recruiting the first federal range extension specialist to add to this unit's Washington office staff.

Another highly successful technology transfer program is the WESTFORNET system, which involved from a cooperative effort between scientists and practitioners, here in California, to provide the scientific and technical information needed by professionals. This is a special library service, with four service centers filling thousands of requests each year. Its success is attested to by the other organizations wanting to participate, and by our intent to establish similar services elsewhere in the United States.

Thus, we have made quite a bit of progress toward building a range technology transfer program. We must continue to build.

Make Federal Rangelands a Model

The sixth and final prerequisite to rangelands progress is that we must build upon the programs I have described here to make federally administered rangelands a model for modern rangeland management and conservation.

I talked earlier about the poor condition of privately owned rangeland. The improvement of those rangelands is a necessary and important goal, which we must pursue.

But the federal rangelands should set a high standard for management, against which we can measure range practices on other lands. That is most certainly a prerequisite to progress elsewhere.

We are setting out to improve federal rangeland management. The Public Rangelands Improvement Act will help, particularly through the Experimental Stewardship Program which we are conducting with the Bureau of Land Management. That program, and the Coordinated Resource Planning effort, embody the concept that coordination, cooperation, and consultation among all range interests should result in improved land management. We will make that cooperation the backbone of our range programs.

Upgrading the professional standards for range managers will help, too. We are working with the Office of Personnel Management to revise the minimum qualification standards for range conservationists, by requiring additional education in range management and natural resources.

And I know that you will help us in the future, as you have in the past, by pointing out the needs on the rangelands of this nation, and working with us to address them. We need your expertise to address them successfully.

I have set out some major prerequisites to future progress in range management. We face great challenges in fulfilling them. But we have met great challenges before and have always overcome them. I sense a new vitality in our rangeland programs--a shared commitment to making them work as effectively as they must.

Our commitment to the rangeland resource can never end. You can't build a resource to optimum productivity and then leave it alone to continually fulfill the needs of a growing population. It must be continually renewed and managed to sustain each new generation of Americans.

It is our turn, now, to manage and renew these rangelands. Step by step, our generation has rebuilt the productivity and worth of our rangeland resources. Now we must continue our commitment to managing and conserving our rangelands, so that these essential resources can be passed on--improved in value--to those who follow.

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